

PATENT

Attorney Docket No.: A-71605/DJB

Attorney File No.: 465377-1098

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

DASGUPTA et al.

Serial No.: 10/652,032

Filing Date: August 28, 2003

For: Continuous Ion Species Removal

Device and Method

Examiner: Not Yet Assigned

Art Unit: 1743

CERTIFICATE OF MAILING

I hereby certify that this correspondence, including listed enclosures, is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450:

Dated:

April 9, 2004

gned Maria Organovich

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying form PTO/SB/8A. In accordance with 1273 Off. Gaz. Pat. Off. 1, 8/5/2003, no copies of U.S. patents and U.S. published applications are enclosed. Copies of all other references are enclosed.

Further, in accordance with the provisions of 37 C.F.R. §§ 1.97(c) and 1.97(e)(1), the undersigned certifies that the references listed on the enclosed substitute for form PTO-1449 marked with an asterisk (*) were first cited in an International Search Report dated January 26, 2004, for counterpart PCT application PCT/US03/27832. A copy of the International Search

Serial No. 10/652,032

Filing Date: August 28, 2003

It is not believed that the foregoing reference discloses the invention as claimed. Nothing herein shall constitute an admission concerning the contents of the cited reference, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application. Submission of the present document shall not be construed as an admission that a search has been made or that better art does not exist.

As far as is known to the undersigned, this Information Disclosure Statement is being filed within three months of the filing date of a national application, within three months of the date of entry of the national state in an international application, or before the mailing date of a first Office Action on the merits as set forth in 37 C.F.R. § 1.97(b), and therefore no fee is required. While no further fee is believed to be due, if this belief is in error, the Commissioner is authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-2319 (Our Order No. 465377-1098 (A-71605/DJB)).

BY:

Respectfully submitted, DORSEY & WHITNEY LLP

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3/30/04 Dated:

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Attachments: Form PTO/SB/8A, Substitute for form 1449

14 cited references

International Search Report

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E TO EMBON Complete if Known Substitute for form 1449A/PTO (Modified) Application Number 10/652,032 ∜FORMATION DISCLOSURE Filing Date August 28, 2003 STATEMENT BY APPLICANT DASGUPTA, Purnendu K. First Named Inventor 1743 Art Unit (use as many sheets as necessary) **Examiner Name** To be assigned 1 A-71605/DJB (465377-1098) Sheet Attorney Docket Number

	U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ² (<i>if known</i>)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
<u>-</u>	A1 *	5,971,158	10-26-1999	Brody et al.	
	A2 *	6,297,061 B1	10-02-2001	Wu et al.	

	FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No.1	Cite No. ¹ Foreign Patent Document Country Code ² Number ⁴ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T⁵
	B1 *	WO 02/23161 A1	03-21-2002	University of Washington		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, sympos catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
	C1	BORING, C.B., et al., "Compact, field-portable capillary ion chromatograph," J. Chromatogr. A, 804:45-54 (1998).	
	C2 *	DASGUPTA, P., et al., "Flow of Multiple Fluids in a Small Dimension," Anal. Chem., 74(7):208A-213A (Apr. 2002).	
	СЗ	DASGUPTA, P., et al., "Suppressed Conductometric Capillary Eletrophoresis Separation Systems," <i>Anal. Chem.</i> , 65(8):1003-1011 (Apr. 1993).	
	C4 *	FOUCAULT, A.P., et al., "Counter-current chromatography: instrumentation, solvent selection and some recent applications to natural product purification," <i>J. Chromatogr. A</i> , 808:3-22 (1998).	
•	C5	KANG, Q., et al., "An integrated micro ion-exchange separator and detector on a silicon wafer," Chem. Eng. Sci., 56:3409-3420 (2001).	
	C6 *	KUBAN, P., et al., "Microscale continuous ion exchanger," Anal. Chem., 74(21):5667-5675 (Sep. 2002).	
	C7 *	KUBAN, P., et al., "Vertically Stratified Flows in Microchannels. Computational Simulations and Applications to Solvent Extraction and Ion Exchange," Anal. Chem., 75(14):3549-3556 (Jul. 2003).	
	C8	KUTTER, J., "Current developments in electrophoretic and chromatographic separation methods on microfabricated devices," <i>Trends Anal. Chem.</i> , 19(6):352-363 (2000).	
	C9	MURRIHY, J., et al., "Ion chromatography on-chip," J. Chromatogr. A, 924(1-2):233-238 (Jul. 2001).	
	C10	PYO, D., et al., "High Temperature Open Tubular Capillary Column Ion Chromatography," <i>Anal. Sci.</i> , 13(Supp.):185-190 (1997).	
	C11	ROKUSHIKA, S., et al., "Micro Column Ion Chromatography with a Hollow Fibre Suppessor," Chrom., 15:637-643 (1983).	
	C12	SJÖGREN, A., et al., "Capillary Ion Chromatography with On-Line High-Pressure Electrodialytic NaOH Eluent Production and Gradient Generation," <i>Anal. Chem.</i> , 69(7):1385-1391 (Apr. 1997).	
	C13 .	SMALL, H., et al., "Novel Ion Exchange Chromatographic Method Using Conductimetric Detection," <i>Anal. Chem.</i> , 47(11):1801-1809 (Sep. 1975).	

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Examiner Signature	Date Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not

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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process): an application. Confidentiality governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application form to the USPTO. Time will vary depending on the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.